

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMISSIONER FOR PATENTS PO Box 1450 Alexascins, Virginia 22313-1450 www.emplo.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/705,879	11/13/2003	Uwe Leuteritz	1033275-000416	6293	
21839 7590 0221/2008 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404			EXAM	EXAMINER	
			HWU, I	HWU, DAVIS D	
ALEXANDRIA, VA 22313-1404		ART UNIT	PAPER NUMBER		
			3752		
			NOTIFICATION DATE	DELIVERY MODE	
			02/21/2008	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Application No. Applicant(s) 10/705.879 LEUTERITZ ET AL Office Action Summary Examiner Art Unit Davis D. Hwu 3752 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS. WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 05 February 2008. 2a) ☐ This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-6 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) _____ is/are allowed. 6) Claim(s) 1-6 is/are rejected. 7) Claim(s) _____ is/are objected to. 8) Claim(s) _____ are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are; a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abevance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)

Notice of Draftsperson's Patent Drawing Review (PTO-948)

Paper No(s)/Mail Date. ___

6) Other:

5) Notice of Informal Patent Application

Page 2

Art Unit: 3752

Application/Control Number: 10/705.879

DETAILED ACTION

Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior at are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Probst in view of Kelly (US Patent 4,255,777).

Probst discloses a liquid atomizing device comprising a conductive nozzle body 14 having a pressurized liquid supply 17, wherein the body is put on ground potential at portion 22, and a voltage supply to bring about an electrostatic charging of the liquid medium as recited. Probst does not disclose the voltage being pulsed. Kelly teaches a liquid atomizing device which uses a pulsed voltage source to electrostatically charge the liquid. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Probst by providing a pulsed voltage source to electrostatically charge the liquid as has been taught by Kelly. The device will carry out methods as recited. Regarding claim 3, this method step would have been obvious to one having ordinary skill in the art in order to compensate for a reduction of the pressure of the liquid medium in order to adequately atomize the liquid. Regarding claim 4, the liquid comprising liquid fuel would have been a matter of design choice, and it would have been obvious to one having ordinary skill in the art that a

Page 3

Application/Control Number: 10/705,879

Art Unit: 3752

higher duty cycle would be applied during start up since the fuel is cold in order to adequately atomize the fuel.

- The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Kelly '394 and Kelly '465 are pertinent to Applicant's invention.
- 4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davis D. Hwu whose telephone number is 571-272-4904. The examiner can normally be reached on 8:00-4:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toil-free).

/Davis D Hwu/ Primary Examiner, Art Unit 3752